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## REPORT

Remix Factory

DATE DISTR.

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## REFERENCES

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four-page report on the Remix factory, including information on key personnel, manufacturing processes, and general organization. The factory is said to include departments for "the manufacture of resistances, condensers, electrolytic condensers, raw material and finished goods stores, offices, and workshops." A layout sketch accompanies the report. 25X1

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HUNGARYECONOMIC/SCIENTIFICThe REMIX Factory

1. The factory was founded before the second World War and was previously a private concern. It is situated at BUDAPEST X (Kőbánya) Zalka Maté Platz.

2. Until the summer of 1956 the Director of the factory was a certain ~~FAKAS~~, <sup>for</sup> an ex-mechanic. [redacted]

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The

present Director came from the Beloiannis Works.

3. The Head of the Development Department is Bela ~~MITTERHOLZER~~ [redacted]

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4. The chief technologist is a certain (Frau) SZALI. [redacted]

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5. There is an installation at Helomstrasse 4, about 200-300 metres from the factory. Within the factory there are departments for the manufacture of resistances, condensers electrolytic condensers, raw material and finished goods stores, offices and workshops.

6. Carbofix (Carborid) Resistances

These resistances are manufactured by techniques which are also known in Western countries. From pentane-hexane gas the carbon is cracked, at 900°C, on to porcelain rollers, which are 20mm in length and have a diameter of 5 mm. The production cost per piece is 1.60 forints. The pentane-heptane mixture is imported from Eastern Germany, approximately 10 litres per month. These resistances are of the best quality, but a disadvantage is the fact that

~~SECRET~~ high ratings (above 10 M. Ohms) cannot be made in this way.

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The contact is a copper cap (previously wire) with colloidal silver (Degussa), which is imported from East Germany. This is the only type of resistance which is suitable for precision instruments, including those for military purposes.

7. Laszlo RATKY [redacted] is in charge of this production. [redacted]

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8. Intensive research is carried out in this field at HIKI.

#### Layer Resistances

9. These resistances are made by spraying a mixture of artificial resin and carbon black in suspension on to porcelain rollers in a revolving drum. The artificial resin is of Hungarian origin (Erdöslakk), and the carbon black comes from PHILBURG. Small and large resistances (from 100 Ohms - 10 M. Ohms) are made in this way. They are cheap but not very stable. The instability of the Ohm value varies from 2-5% per month, and the Ohm value varies from 1-5% according to the humidity. The noise-level is also very high (40 - 60 uV/v). These resistances are used for civilian receiving sets. They are not exported, and no imported materials are required for them. A number of wire resistances are also produced, both with and without smelting.

#### Potentiometers

10. Both the wire and non-wire type of potentiometer is manufactured (from 30 Ohms - 3 M. Ohms). The layer, which consists of artificial resin, carbon black and iron oxide, is poured on to a bakelite belt. This is a sensitive process requiring much research. Difficulties are encountered in constancy of noise-level, in stability, and in contact faults.

11. The head of this department is RADI, [redacted]

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Condensers.....

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Condensors (Mica)

12. The technical processes are in accordance with technical data, published in the West, and the quality of the product is approximately similar. The mica is imported.
13. The head of the department is Anna FABIAN

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Condensors (Paper)

14. An impregnated paper strip is laid between two layers of aluminium foil. The impregnating medium is Nibren (halogenised naphthalene). Research is being carried out to find a better medium, as the Nibren decomposes and corrosion occurs.

Condensors (Metal paper)

15. Production of these condensers has not yet started, but research is being carried out.

Cable Condensers

16. These condensers are manufactured for the Post Office. A Siemens type is copied. Sand is used as insulating material.

Electrolytic Condensers

17. Aluminium sheets are etched at 60°C with a mixture of HF and HCl, to increase the surface area 4 - 5 times. The foil is 99.99%, and is imported. The anode oxidation is at 600V. The residual current is higher than for instance with the Siemens Ducati. There are corrosion problems with the contacts, and the condensers sometimes burst on account of the formation of gas. The electrolytic condenser consists of boric acid, glycerine and glycol, but the mixture is never constant. This presents a critical problem for the Military authorities, particularly in the case of condensers which have to operate at -50°C.

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18. REMIX cannot supply sufficient of these condensers to satisfy demand; a larger number are made by GLOSS, a private firm, and some are obtained from abroad. In particular Siemens.....

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Siemens condensators are used.

19. The head of this department is (Dipl. Ing.) Menghert CSAR. Until the beginning of 1956 the heads were (Dipl. Ing.) Oskar BORHAY and Josef BOCSAN, who was self-taught.

20. REMIX employs about 500 workers, of which about 25 are technicians and 50 administrative personnel.

21. TAKI is the official controlling body for REMIX.

Two advisers from TAKI work at REMIX, (Dipl. Ing. Dr.) Peter DENES, an electro-engineer and (Dipl. Ing. Dr.) Loran BORSDI, a chemical engineer. TAKI tests every product of REMIX, and also carries out research for them on electrolytic condensators and potentiometers. Relations between the two concerns are not good.

22. HIKI also works for REMIX but is independent. Relations between HIKI and REMIX are also bad.

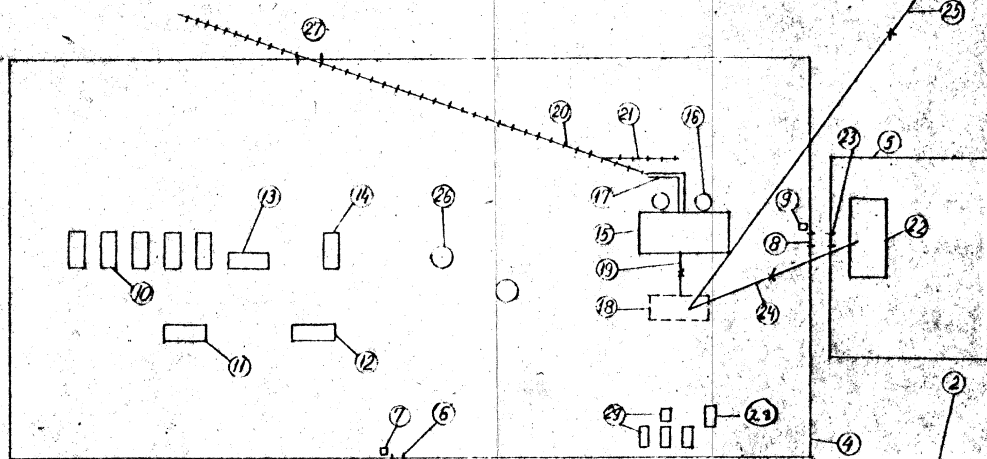
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Sketch

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